AMENDMENTS TO THE CLAIMS

1. (Cancelled)

2. (Cancelled)

3. (Currently Amended) The apparatus of ~~claim 2,~~claim 4, wherein the X-redundancy decoder stops driving the X-decoder when the X-redundancy cantilever array is selected.

4. (Currently Amended) ~~The apparatus of claim 2,~~ A storage apparatus comprising:

a cantilevery array cantilever probes;

an X-redundancy cantilever array configured to read and write information when at least one cantilever probe of a specific row in the cantilever array is defective;

a Y-redundancy cantilever array configured to read and write information when at least one cantilever probe of a specific column in the cantilever array is defective; and

a redundancy cantilever array controller configured to determine that a corresponding cantilever probe is defective when the corresponding cantilever probe is unable to read and write information, and configured to select the X-redundancy cantilever array and the Y-redundancy cantilever array when the at least one cantilever probe of the specific row and of the specific column in the cantilever array is defective,

wherein the redundancy cantilever controller comprises:

an X-decoder configured to receive an X-address signal and to drive cantilevers of the specific row in the cantilever array;

an X-redundancy decoder configured to stop driving the X-decoder when the at least one cantilever probe of the specific row in the cantilever array is defective and to select the X-redundancy cantilever array;

a Y-decoder configured to receive an Y-address signal and selectively drive the specific column in the cantilever array; and

a Y-redundancy decoder for configured to stop driving the Y-decoder when the at least one cantilever probe of the specific column in the cantilever array is defective, and to select the Y-redundancy cantilever array, and

wherein the X-redundancy decoder comprises:

an output terminal configured to output a stop signal to the X-decoder when the at least one cantilever probe of the specific row in the cantilever array is defective;

a high voltage unit configured to transfer a high voltage (V_{CC}) to the output terminal by a specific pulse signal (XRP);

a low voltage unit configured to receive the X-address signal and to output a low voltage (0V) to the output terminal; and

a plurality of fuses connected between the output terminal and the low voltage unit and to selectively defuse when the at least one cantilever probe of the specific row in the cantilever array is defective.

5. (Previously Presented) The apparatus of claim 4, wherein the X-redundancy decoder converts signal values received from the high voltage unit and the low voltage unit into logical values and outputs corresponding signal values to the X-decoder and the X-redundancy cantilever array.

6. (Previously Presented) The apparatus of claim 4, wherein the fuse comprises a polysilicon line or a metal line that can be melted by using an overcurrent, cut by a laser beam or programmed by an EPROM memory cell.

7. (Currently Amended) The apparatus of ~~claim 2,~~claim 4, wherein the redundancy cantilever array controller further comprises:

a Y-switch configured to receive an output signal of the Y-decoder when the at least one cantilever probe of the specific column in the cantilever array is defective, and to cut off a data output of the at least one defective cantilever probe of the specific column; and

a Y-redundancy switch configured to receive an output signal of the Y-redundancy decoder when the at least one cantilever probe of the specific column in the cantilever array is defective, and to switch a data output of the Y-redundancy cantilever array.

8. (Previously Presented) The apparatus of claim 7, wherein when the Y-redundancy cantilever array is selected, the Y-redundancy decoder stops driving the Y-decoder and outputs a signal for selecting the Y-redundancy switch.

9. (Currently Amended) ~~The apparatus of claim 2,~~ A storage apparatus comprising:

a cantilevery array cantilever probes;

an X-redundancy cantilever array configured to read and write information when at least one cantilever probe of a specific row in the cantilever array is defective;

a Y-redundancy cantilever array configured to read and write information when at least one cantilever probe of a specific column in the cantilever array is defective; and

a redundancy cantilever array controller configured to determine that a corresponding cantilever probe is defective when the corresponding cantilever probe is unable to read and write information, and configured to select the X-redundancy cantilever array and the Y-redundancy cantilever array when the at least one cantilever probe of the specific row and of the specific column in the cantilever array is defective,

wherein the redundancy cantilever controller comprises:

an X-decoder configured to receive an X-address signal and to drive cantilevers of the specific row in the cantilever array;

an X-redundancy decoder configured to stop driving the X-decoder when the at least one cantilever probe of the specific row in the cantilever array is defective and to select the X-redundancy cantilever array;

a Y-decoder configured to receive an Y-address signal and selectively drive the specific column in the cantilever array; and

a Y-redundancy decoder for configured to stop driving the Y-decoder when the at least one cantilever probe of the specific column in the cantilever array is defective, and to select the Y-redundancy cantilever array, and

wherein the Y-redundancy decoder comprises:

an output terminal configured to output a stop signal to the Y-decoder when the at least one cantilever probe in the specific column in the cantilever array is defective;

a high voltage unit configured to output a high voltage (V_{CC}) to the output terminal by a specific pulse signal (YRP);

a low voltage unit configured to receive a Y-address signal and outputting a low voltage (0V); and

a plurality of fuses connected between the output terminal and the low voltage unit, and to selectively defuse when the at least one cantilever probe of ~~a~~ the specific column in the cantilever array is defective.

10. (Currently Amended) The apparatus of ~~claim 1,~~claim 4, wherein the X-redundancy cantilever array includes 'p' number of rows and 'm' number of columns ($p \leq n$, p=1, 2, 3..), and if cantilever probes of the specific row in the cantilever array having an nxm number of cantilevers are defective, cantilevers of ~~a~~ the specific row of the X-redundancy cantilever array are substitutively used, and meanwhile, the Y-redundancy cantilever array includes the 'n' number of rows and 'k' number of columns ($k \leq m$, k=1, 2, 3, ...), and if cantilever probes of the specific column in the cantilever array having the nxm number of cantilevers are defective, cantilevers of ~~a~~ the specific column in the Y-redundancy cantilever array are substitutively used.

11. (Cancelled)

12. (Currently Amended) The apparatus of ~~claim 2,~~claim 4, wherein the X-decoder includes NAND gates and inverters connected to the NAND gates.

13-15. (Cancelled)

16. (Previously Presented) The apparatus of claim 7, wherein the Y-decoder comprises:

NAND gates configured to receive the Y-address signal and a signal from the Y-redundancy decoder and to turn on or off a switch of the Y-switch; and

inverters connected to the NAND gates.

17-18. (Cancelled)